MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

OFFICE OF GEOLOGY

OPEN-FILE REPORT 287

GEOLOGIC MAP

of the

PASCAGOULA NORTH QUADRANGLE

Jackson County, Mississippi

Geology by James E. Starnes, RPG,
Lindsey Stewart,
and R. Tyler Berry, RPG

2018

DESCRIPTION OF MAP UNITS

QUATERNARY — HOLOCENE

Qal — ALLUVIUM

Flood plain sands, silts, gravels, and clays. In the Pascagoula River alluvium, Chert gravel is exclusive to the basal portion. The Pascagoula River Alluvium is approximately 40 to 60 feet thick. Chert-bearing gravels were absent outside the Pascagoula River alluvium in the Gautier North Quadrangle. Quartz pea gravels were noted in the smaller second order streams.

QUATERNARY — PLEISTOCENE

Qtpc — PAMLICO COASTAL TERRACE

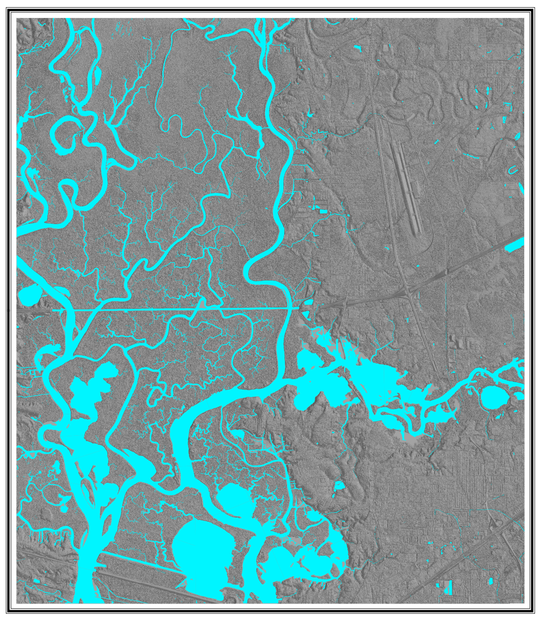
Sand, orange to tan colored, fine- to coarse-grained, predominantly quartzose, cross-bedded to massive; graveliferous, pea-to cobble -size, predominantly leached to chalky brown, gray, and white -colored chert and milky quartz; clay, kaolinitic, pink to white, generally occurring as discontinuous lenses. Ferruginous sandstone and pyrolusite common in basal contact with the underlying Graham Ferry Formation.

TERTIARY — PLIOCENE

Tgf — GRAHAM FERRY FORMATION

Sand, dark greenish-gray, yellow to tan, micaceous and glauconitic (exclusively in the fine-grained sands), fine- to coarse-grained, predominantly quartzose, cross-bedded to massive. Weathers to orange, purple, red, pink with reddish-brown colored pebbly ironstone residuum; Clay, green, gray, brown, weathers mottled purple to pink and white to reddish-brown, silty to fine-sandy, locally lignitic and contains pyrite nodules in places.

P-0004 — Drill-hole locality and identification number



Composite Bare Earth LIDAR 2015 Hillshade VE X10 of the Pascagoula North Quadrangle

GEOLOGIC MAP

PASCAGOULA NORTH QUADRANGLE

Jackson County, Mississippi

SCALE 1:24,000

1 0.5 0 1 Mile

1,000 0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 Feet

1 0.5 0 1 Kilometer

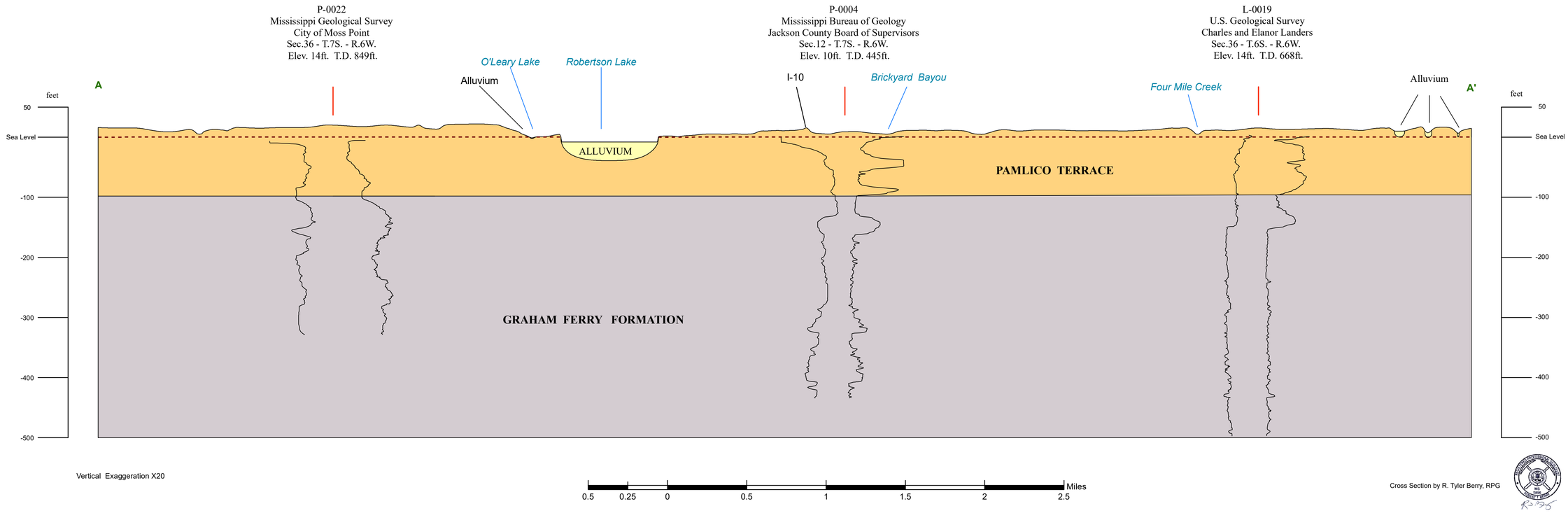
Geology field checked in 2016 - 2017 using the 1982, Provisional Edition, United States Geological Survey (USGS) 7.5-minute topographic quadrangle, Universal Transverse Mercator projection, 1927 North American Datum, contour interval 5 feet. Universal Transverse Mercator projection, 1983 North American Datum. GRS80 spheroid. 1000-meter Universal Transverse Mercator 1983 datum grid ticks, zone 16, shown in red. January 01, 2018, magnetic declination in quadrangle center is 1°54' west of true north, ± 0°20' uncertainty, changing by 0°7' west per year.

Sources: Contours derived from Mississippi Automated Resource Information System (MARIS); Public Land Survey System, 1:24,000 scale, from MARIS; water features from the MS Coordinating Council for Remote Sensing and Geographic Information Systems (MCCRSGIS) MDEM 2007 Coastal Region Dataset; road features derived from the Mississippi Department of Transportation (MDOT) 2015 road centerlines; Declination, National Oceanic and Atmospheric Administration (NOAA). United States National Grid (USNG) 16R CU Recovery Grid areas identified by UTM Easting then Northing coordinate principal digits. We thank the Jackson County Board of Supervisors, Charles and the city of Moss Point for their cooperation and for facilitating the data collection and field work necessary for this mapping project. Light Detection and Ranging (LIDAR) 2015 (0.7-meter nominal point spacing) project from the Mississippi Department of Environmental Quality (MDEQ), Mississippi State University (MSU), USGS, NOAA, and Natural Resources Conservation Service (NRCS).

Geographic Information System by Daniel W. Morse. MDEQ does not warrant the accuracy or completeness of the source data. Geologic maps are only a guide to current understanding and do not eliminate the need for detailed investigations of specific sites for specific purposes.

This map was produced by the Mississippi Office of Geology in cooperation with the United States Geological Survey, National Cooperative Geologic Mapping Program, under STATEMAP grant #G17AC00196.

Structural Cross-Section of the Pascagoula North 7.5-Minute Geologic Quadrangle



Cross Section by R. Tyler Berry, RPG